

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003573**Date Inspected:** 18-Aug-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2230**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xia Yong Zheng**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

The QA inspector observed ZPMC performing layout, cutting, beveling, milling, fitting and welding activities in bay # 1 and 2 on Tower Assembly shop.

The QA inspector observed ZPMC welding operator Xu Yue Shui # 040781 performing welding operations with the submerged arc welding (SAW) process using the WPS-BT2221-U3 c-S in the flat (1G) position at the junction of the weld joint # WSD1-SA10 A/K-16B. The QA inspector performed welding parameters verifications. The QA inspector found that the welding parameters appeared to be in compliance with the contract documents.

The QA inspector observed ZPMC welding operator Cao Guimei(047304) performing welding operations with the submerged arc welding (SAW) process using the WPS-BT2221-U3 c-S in the flat (1G) position at the junction of the weld joint # ESD1-SA77 A/E-50B skin plate connection. The QA inspector performed welding parameters verifications. The QA inspector found that the welding parameters appeared to be in compliance with the contract documents.

The QA inspector observed ZPMC performing heat straightening operations at the skin plate WSD1-SA 39 A/K for the skin E, West Shaft beside the weld joint 15A and 15B correcting a 3 mm total deformation according with HSR1(T)-3291. ZPMC's heat straightening operations appeared to be in compliance with the contract documents.

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

The QA inspector observed a flame notch up to 15 mm of depth at the stiffener from the skin B East shaft, plate # 379 B (middle stiffener). The QA inspector had a conversation with the ZPMC CWI Xia Yong Zheng. The QA inspector asked Mr. Xia the procedure follow by ZPMC for flame notches repair. Mr. Xia reply that ZPMC was welding them without requesting for approval of the Engineer. The QA inspector had a conversation with Task leaders Albert Carreon, Joe Lanz. The QA inspector brought to their attention that ZPMC was performing flame notches repair without approval of the Engineer. Later, the QA inspector had a conversation with ZPMC QC representative Xu Jun. The QA inspector asked why ZPMC was not requesting the Engineer for approval before repairing the flame notches. ZPMC representative showed the QA inspector a letter from ABF representatives directing ZPMC welding flame notches according with the approved base metal repair procedure ZPMC's WQCP. The QA inspector said that most of the steel was designed on the contract drawing on tension and reversal of the stress members and according with the AWS D1.5 flame notches needed to be tested by magnetic particle and ultrasonic and ZPMC's WQCP was not covering this condition. The QA inspector informed to caltrans task Leaders about the conversation held with Mr. Xu and gave the letter from ABF directing ZPMC to repair flame notches without requesting for Engineer approval.

Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco, 858 344-8746, who represents the Office of Structural Materials for your project.

Inspected By:	Acuna,Alfredo	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
